

Appl. No.: 10/007,716
Amdt. dated December 20, 2004
Reply to Office Action of October 20, 2004

Amendments to the Claims:

1. (Currently Amended) Substantially homogeneous type II-like collagen isolated from one or more species of jellyfish, said collagen comprising at least 85 wt % of collagen-protein.
2. (Original) The type II-like collagen of claim 1, wherein said species is *Stomolophus meleagris*.
3. (Original) The type II-like collagen of claim 2, wherein said jellyfish comprise one or more elements selected from the group consisting of the umbrella, arms, and the whole organism.
4. (Original) The type II-like collagen of claim 1, wherein said collagen comprises at least 90 wt % of collagen-protein.
5. (Original) The type II-like collagen of claim 1, wherein said collagen comprises at least 95 wt % of collagen-protein.
6. (Original) The type II-like collagen of claim 1, wherein said collagen comprises at least 99 wt % of collagen-protein.
7. (Currently Amended) The type II-like collagen of claim 1, produced by the process comprising:
 - a. extracting acid insoluble collagen from one or more jellyfish species to form a solubilized collagen solution;

Appl. No.: 10/007,716
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b. salt fractionating said collagen solution by precipitating a fraction of said collagen from said solubilized collagen solution at a pH between 7.0 and 8.0 by sequentially increasing the molarity of salt to 1.8 M, 2.5 M, 3.0 M, 3.5 M, 4.0, and 4.5 M and removing said precipitated collagen fraction after each sequential increase; and

c. collecting the collagen fraction precipitated in the range of 3.0-3.5 M salt.

8. (Previously Presented) The type II-like collagen of claim 7, wherein said salt comprises one or more alkali metal halides.

9. (Previously Presented) The type II-like collagen of claim 7, wherein said salt comprises NaCl.

10. (Original) The type II-like collagen of claim 7, wherein said salt fractionating is carried out at a pH of 7.5.

11. (Currently Amended) Type II-like collagen, produced by the process comprising:

a. extracting acid insoluble collagen from *Stomolophus meleagris* to form a solubilized collagen solution;

b. salt fractionating said collagen solution by precipitating a fraction of said collagen from said solubilized collagen solution at pH 7.5 by sequentially increasing the molarity of salt to 1.8 M, 2.5 M, 3.0 M, 3.5 M, 4.0 M, and 4.5 M and removing said precipitated collagen fraction after each sequential increase; and

c. collecting the collagen fraction precipitated in the range of 3.0- 3.5 M salt.

Appl. No.: 10/007,716
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12. (Currently Amended) A method of treating arthritis in a subject in need thereof, said method comprising administering a therapeutically effective amount of a substantially homogeneous type II-like collagen from one or more species of jellyfish to said subject, said collagen comprising at least 85% wt % of collagen-protein.

13. (Original) The method of claim 12, wherein the arthritis is rheumatoid arthritis.

14. (Currently Amended) A method for modulating an autoimmune response in a mammal comprising administering a therapeutically effective amount of a substantially homogeneous type II-like collagen from one or more species of jellyfish to said mammal, said collagen comprising at least 85% wt % of collagen-protein.

15. (Currently Amended) A pharmaceutical composition comprising a substantially homogeneous type II-like collagen from one or more species of jellyfish and a pharmaceutically acceptable carrier, said collagen comprising at least 85% wt % of collagen-protein.

16. (Canceled)